

REMARKS

35 U.S.C. 112 Rejections

Claims 9 – 11 were rejected under 35 U.S.C. 112, second paragraph. In response, Applicants have amended claims 9 – 11 to address the Examiner's rejections. Specifically, claim 9 has been amended to further define the acrylic component of claim 8. Claim 10 has been amended to correct the indefinite term and the typographical error in line 3. Finally, claim 11 has been amended so that it is now dependent upon claim 3 so as to provide proper antecedent basis for the reactive hot melt composition. No new matter has been added via any of these amendments. In view of these amendments, it is respectfully requested that the Examiner withdraw the rejections based on 35 U.S.C. 112, second paragraph.

35 U.S.C. 102(b) Rejections

Claims 1 and 2 were rejected under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 4,632,951, issued to Fuhr. Fuhr discloses a flame-retardant material having a layer of metal oxide to enhance the flame retardancy. There is no disclosure in Fuhr of a method of imparting flame retardant properties to a polyurethane composition via the addition of a fire retardant without the further addition of a metal oxide. The method and composition of the present invention do not include the use of a metal oxide. As anticipation under 35 U.S.C. 102(b) requires identity of invention, in view of the differences between Fuhr and the present invention, it is respectfully submitted that claims 1 and 2 are patentable under 35 U.S.C. 102(b) over Fuhr.

35 U.S.C. 103(a) Rejections

Claims 1 and 2 were rejected as unpatentable under 35 U.S.C. 103(a) over Fuhr. The distinctions between Fuhr and the present invention set forth above are equally applicable to the present rejection. Further, the comparative examples of Fuhr in column 5 clearly indicate that the mere combination of the fire retardant agent and the thermoplastic materials of Fuhr without the metal oxides do not provide a flame retardant material. The flame retardant material of Fuhr is only accomplished following the addition of a metal oxide. Thus, one skilled in the art would not be led to the present invention via Fuhr and, in fact, would be led away from the invention and would incorporate a metal oxide into the composition to provide flame retardant properties. Accordingly, it is respectfully submitted that claims 1 and 2 are patentable under 35 U.S.C. 103(a) over Fuhr.

Claims 1 – 13 were rejected as unpatentable under 35 U.S.C. 103(a) over U.S. Patent No. 5,342,873, issued to Merz, in view of U.S. Patent No. 3,959,219, issued to Aoyama, or Fuhr, or U.S. Patent Nos. 4,654,105; 4,616,044; and 4,652,485, all issued to Fesman, each in further view of U.S. Patent No. 5,331,040, issued to Lee. Merz discloses a reactive hot melt composition that may optionally contain a flame retardant. As noted by the Examiner, Merz does not disclose the species of flame retardant of the present invention. Aoyama discloses the use of flame retardants with thermoplastics. Aoyama does not disclose, teach or suggest the use of the flame retardant compositions in a polyurethane composition such as that of the present invention. Further, there is no suggestion that the flame retardants of Aoyama would be suitable for a reactive hot melt composition such as that of Merz. Lee discloses an adhesive composition having a latex plasticizer comprising, among other possible ingredients, acrylonitrile and methacrylic acid. There is not, however, any disclosure that the teachings of Lee would be applicable to a polyurethane system such as that of the present invention. In fact, the combination of Merz,

Aoyama and Lee would teach away from the present invention in that the plasticizer of Lee has a high decomposition temperature while polyurethane has a low decomposition temperature. Thus, one skilled in the art would be led away from the possibility of a polyurethane composition such as that of the present invention.

There is not motivation to combine Merz, Fuhr and Lee and, even if such a combination were made, it would not lead one skilled in the art to the present invention for several reasons. The resulting combination would contain a plasticizer and would not be a polyurethane system, following the teachings of Lee, and would contain metal oxide according to the teaching of Fuhr. Further, there is no motivation to combine Merz, any of the three Fesman references and Lee. The Fesman references are related to each other and disclose a heat laminatable polyurethane foam and process for producing the foam. The foam and process of Fesman require the inclusion of an organophosphorus material. There is no motivation to combine Merz, Fesman and Lee. Even if one skilled in the art were to make that combination the result would not be the present invention. The resulting combination would not be a polyurethane composition and would contain an organophosphorus material according to Fesman. In view of the lack of motivation to combine the references, the resulting differences between the present invention and the combination of the references and the fact that one skilled in the art would be led away from the present invention via the combination of references, it is respectfully submitted that claims 1 – 13 are patentable under 35 U.S.C. 103(a) over Merz, in view of Aoyama, or Fuhr, or Fesman, and further in view of Lee

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance. If there are any issues that the Examiner wishes to discuss, he is invited to contact the undersigned attorney at the telephone number set forth below.

Respectfully submitted

A handwritten signature in cursive script, appearing to read "Charles W. Almer", written in black ink.

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APPENDIX 1
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 9 – 11:

9. The adhesive composition of claim 8 prepared by reacting from about 5 to about 50 parts by weight of an isocyanate, from about 1 to about 70 parts by weight of a polyol, about 0.1 [0] to about 40 parts by weight of an acrylic resin and from about 1 to about 50 parts by weight of ethylenebistetrahydrophthalimide and/or tris(2,3-dibromopropyl)isocyanurate.

10. The composition of claim 9 further comprising from about 0 [up] to about 10 parts by weight of a chlorinated paraffin and/or from about 0 [up] to about 10 parts by weight of an aryl phosphate ester as a further [a] flame retardant.

11. A method for bonding articles together which comprises applying a reactive hot melt adhesive composition according to the method of claim 3 [1] in a liquid form to a first article, bringing a second article in contact with the composition applied to the first article, and subjecting the applied composition to conditions which will allow the composition to cool and cure to a composition having an irreversible solid form, said conditions comprising moisture.

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